National Institute of Environmental Health Sciences

London housing and climate change: Impact on comfort and health - Preliminary results of a summer overheating study

Author(s): Mavrogianni A, Davies M, Wilkinson P, Pathan A
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Abstract:

Climate change presents potential increased threats to the comfort and health of urban populations as a result of higher summer temperatures. This paper reviews recent research on the climate change adaptation potential of urban environments and focuses on a major conurbation, London. Recent work relating to the impact of exposure to heat on population health is also noted. Data obtained from a pilot monitoring study carried out in a subset of 36 dwellings (from a total of 110 dwellings in the overall study) across London during the summer of 2009 is then discussed. Preliminary results illustrate the need to quantify the net impacts of individual building characteristics and the location of each dwelling within the London heat island. During a hot period, more than 40% of the monitored bedrooms failed the recommended overheating criteria during the night time. There was some indication of purpose built flats being more prone to overheating. The potential use of such data as the basis of a heat-related health risk epidemiological model for London is discussed. Such a tool would help health policy makers to target the most vulnerable building types and areas.

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Resource Description

Exposure : ☑

weather or climate related pathway by which climate change affects health

Indoor Environment, Temperature

Temperature: Extreme Heat

Geographic Feature: ☑

resource focuses on specific type of geography

Urban

Geographic Location: ☑

resource focuses on specific location

Non-United States

Non-United States: Europe

European Region/Country: European Country

Other European Country : England

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Injury, Other Health Impact

Other Health Impact: heat related morbidity and mortality

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type: ☑

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content